

Krzysztof Penderecki's *Polymorphia* and *Fluorescences*

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During the Nazi occupation of Poland, Hitler's forces razed the major concert halls and conservatories, burned most of the existing scores, and imprisoned or murdered numerous musicians. The period immediately following the devastation of World War II was characterized by a new intensity of governmental support for the arts. Musical education was revived with a new vigor, as concert halls and conservatories were quickly built to replace the rubble left behind. However, along with the regrowth came the restrictive censorship of Stalinist communism which commanded that artistic works embody social realism and praise of the proletariat. Few works of any lasting merit were produced during this time, and those that were often met with cultural banishment, as was the case with Lutoslawski's First Symphony (1947). All of this changed in 1956 with the overthrow of the Stalinist regime in Poland. Out of the Stalinist demise was born a new spirit of adventure, individualism, and freedom. Krzysztof Penderecki (b. 1933) is of the generation that benefited most from these changing currents.

Penderecki's compositions *Polymorphia* for strings (1961) and *Fluorescences* for large orchestra (1962) are often considered jointly as the culmination of sonic and technical experimentation which characterize Penderecki's first acknowledged style period. These two works are virtual reference catalogs of Penderecki's accumulated effects and gestures which populate the sound fabric of many of his later, more "traditional" works and which have subsequently become standardized notational and technical practices in the second half of the twentieth century. While both compositions embody Penderecki's early principle of exploring "noise as sound as music," *Fluorescences* goes one step further than *Polymorphia* in the use of much larger and more varied instrumentation and the inclusion of additional nontraditional performance practices. These works and their scores are not only significant as markers of Penderecki's stylistic development, but also as the embodiment of many of the distinguishing characteristics of the early so-called "Polish school."¹ Moreover, they represent the more general midcentury tendency toward sonic experimentation apparent in the works of other internationally recognized composers such as Boulez, Lutosławski, Stockhausen, Varèse, and Xenakis.

The manuscript sketches for both *Polymorphia* (thirty-three pages) and *Fluorescences* (eighty pages) are ordered and numbered in reverse chronology, with the completed drafts in full score appearing first. These sketches are quite impressive visually, both for the



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aggressive use of color and for the dominating presence of Penderecki's innovative graphic notation. The completed scores are followed by incomplete sketches which grow progressively more fragmented and graphically abstract. Both sets of sketches are notated primarily in multicolored ink, with some brief passages in felt-tip markers and pencil. Performance directions and other text written in Penderecki's hand are in either Polish or German.

Polymorphia is scored for forty-eight strings: twenty-four violins and eight each of violas, cellos, and basses. It was composed in 1961 in fulfillment of a commission from North German Radio Hamburg and premiered on April 6, 1962, in a Hamburg performance conducted by Andrzej Markowski. Other works by Penderecki premiered in 1962 were String Quartet No. 1, Canon for strings and tape, and *Fluorescences*. 1962 was also the year in which Penderecki completed the composition of his *Stabat Mater*, a work which would later gain greater significance as a movement of his highly acclaimed *St. Luke Passion*.²

Somewhat ironically, the title *Polymorphia* (literally "of many forms") does not refer to the structure of the piece. The form of *Polymorphia* is a fairly straightforward ABA' with three segments of roughly equal duration lasting three minutes. Penderecki's biographer Wolfram Schwinger associates the title with "the broadly deployed scale of sound ... the exchange and simultaneous penetration of sound and noise, the contrast and interflow of soft and hard sounds."³ The work is notated in a framework of a nonmetrical system in which segments of specific, yet fluctuating duration are marked off in seconds and read by the performers at a speed proportional to the overall performance time.

The timbre and texture of continuous linear sound in the two outer sections of *Polymorphia*, composed primarily of bands of microtonal clusters, contrasts greatly with the middle section, which is characterized as "a catalogue of punctual and percussive sounds."⁴ The piece closes with a sustained C-Major triad deployed throughout all four string sections. This anachronistic-sounding triad functions to release the climactic tension of the previous microtonal material and can be regarded as the coda to the overall ABA' form.⁵ In a 1977 interview with *Composer* magazine, Penderecki claims that this chord was the seed from which the entire composition grew. His use of this most basic element of common-practice harmony "has nothing to do with tonality" but rather the role it can play in the underlying interplay of "tension and release."

The complete score in this set of sketches for *Polymorphia* is probably the final draft, as there are no significant discrepancies between this version and the edition published in 1963 by Moeck, Celle. It is notated in red, green, blue, and black ballpoint ink, with some musical segments, numbering, and most corrections in lead pencil. Blue and black felt markers were used to draw in the solid bands of sustained clusters and "encephalographic" pitch notation, one of the most visually distinctive aspects of this work. This notation, used to signify a sound mass of unbroken sliding pitches, is based on actual electroencephalograms (i.e., representations of brain waves) recorded at the Krakow Medical Center, where Penderecki was working as a volunteer. Penderecki was inspired by the electroencephalograms recorded as patients listened to a recording of his earlier and best-known composition, *Threnody for the Victims of Hiroshima*.

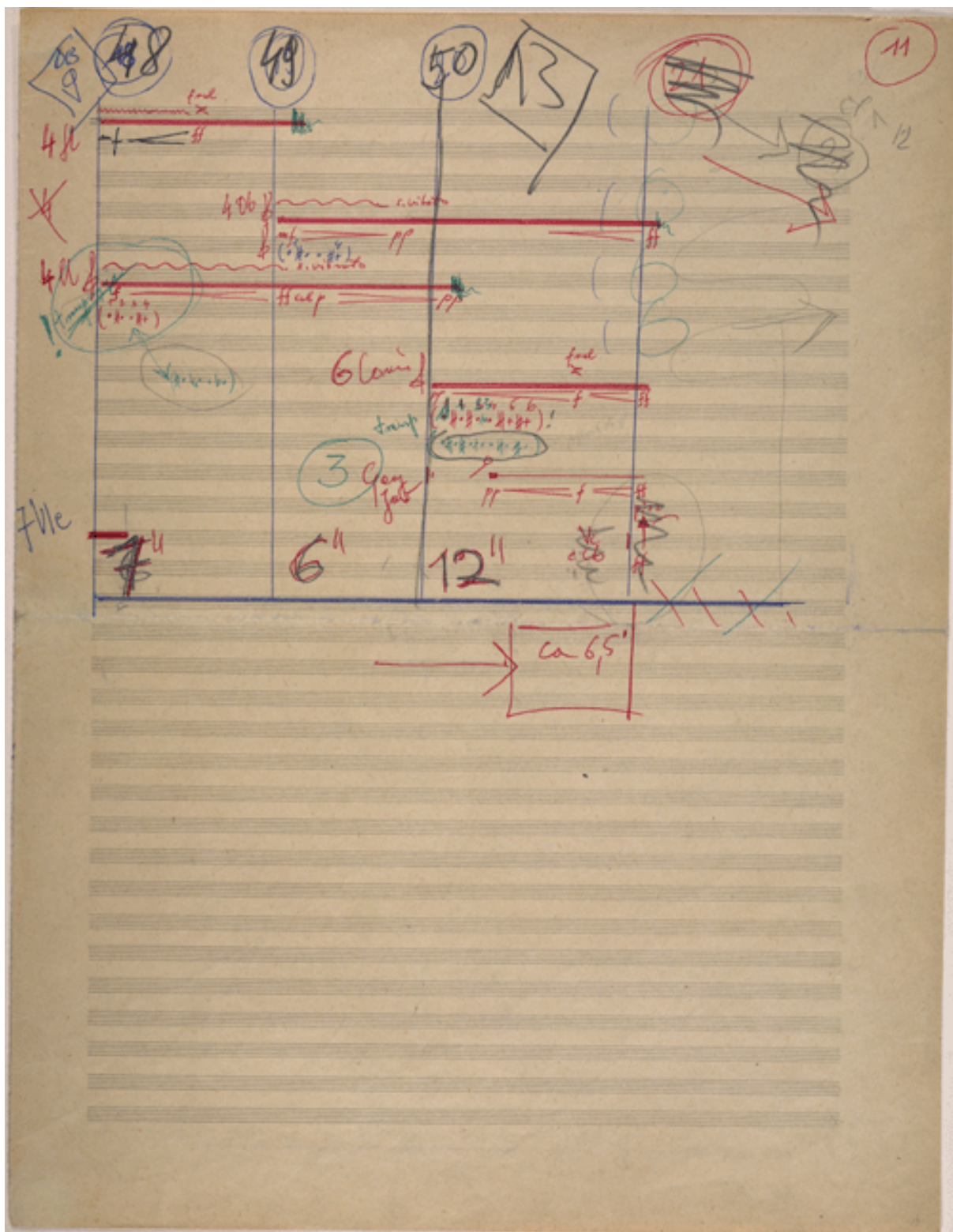
In the compositional method employed during this experimental period, Penderecki begins a composition by translating his aural concepts into abstract graphic drawings. Through the transformation and manipulation of the drawings, he formulates the pitch material and formal structure of the composition. These drawings then give way to what he described as a "shorthand" notation which, in turn, is either adapted to signify an articulatory performance directive or is allied to specific pitches which sonically illustrate the corresponding graphic figure.

The sketches for *Polymorphia* include more than a few examples of this graphic shorthand. The most striking and illustrative is a full-page plan of the entire piece as it evolves through various levels of development.

Fluorescences for orchestra was commissioned by the Southwest German Radio for the annual festival at Donaueschingen where it was premiered on October 21, 1962, under the baton of Hans Rosbaud, the work's dedicatee.

Penderecki described *Fluorescences* as the "terminal balance sheet"⁶ of his experimental period and as "a culminating point from which it was difficult to progress."⁷ Works composed in the time period immediately following *Fluorescences* are characterized by a turn toward the past for inspiration from more traditional styles and forms and a more light-handed use of the experimental sonorities common to his works from the late 1950s to early 1960s. Wolfram Schwinger describes *Fluorescences* as "the direct continuation" of *Polymorphia*: "what he had achieved there, on strings only, must now be braved with the full complement of the symphony orchestra."⁸ Penderecki's first work to include winds (in quadruple forces, no less: four each of flutes, clarinets, oboes, and bassoons), *Fluorescences* is also scored for a full complement of strings, pianoforte, and six differing

percussion sections. The score, published by Moeck in 1962, contains a more



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extensive list of symbols and abbreviations for special effects than any of Penderecki's works, before or since. The most distinctive timbres contributing to the sonic fabric of this work are the eerie voices of the flexaton, siren, sega, and a typewriter, included as members of the sixth percussion battery. The aural effects heard in *Fluorescences* go well beyond the percussive and glissandolike gestures of *Polymorphia*; performers are instructed to hum while they play, to saw wood or iron with a hand saw, to rub percussion instruments vigorously with a metal file, and to rub the soundboard of the string instruments with an open hand. For each of these new gestures, Penderecki created graphic symbols, all of which are derived from the initial conceptual graphic outline for the composition.

The structure of *Fluorescences* does not correspond with any preestablished musical forms but most closely resembles an ABA' pattern. As suggested by Schwinger, it can be best understood as a musical translation of the significance of its title as "the acoustical emergence of unusually articulated manifestations of sound" amidst a landscape of "fluent transitions ... from soft to hard timbres, from translucent to opaque noises ... reinvestigated through fields of contrast, adjacent and overlapping, in such a way as to achieve formal correspondence to passages resumed and audibly reversed."⁹ In the first section, distinct sonic textures are individually illuminated in sequence. The B section or "invention on one note" as it is sometimes referred to, is a timbral and rhythmic study of the pitch C. The final third of the work reintroduces the previously presented timbres and textures in combinations of greater dynamic and textural intensity which contribute to a continually heightening degree of tension. This tension is relieved in the closing moment as each instrument by a downward glissando passes through the pitch C and fades to silence.

The additional material for *Fluorescences* includes a draft of the complete score, two pages of performance instructions written out in German, and forty-eight pages of sketches which grow progressively more fragmented and notationally abstract. Recorded upon these pages are two different dates and locations: "Wien, 7.VI.61" on page 59 and "Stockholm 27.XI.61" on page 41.¹⁰ Other points of interest include a careful mapping out of the specific instrumentation for the six differing percussion batteries and a full-page graphic outline for another composition, drawn in five colors and labeled *Penetrazioni*.

These sketches, substantially more so than those of *Polymorphia*, reveal a composition which greatly challenged its composer and his ability to give voice and logical form to his sonic abstractions. The complete manuscript score, unlike that of *Polymorphia*, reflects a work in progress and not the final version found in the published edition.¹¹

The innovative developments in sonic exploration and the accompanying experimental notation achieved during Penderecki's first period of professional and stylistic evolution reached their zenith in the composition of *Polymorphia* and *Fluorescences*. *Polymorphia* carried out the search for new sonic possibilities in the string family initiated with the composition of *Anaklasis*. *Fluorescences* joined these innovations with the forces of percussion and the full orchestra to elevate Penderecki's early musical language to its highest point.

¹ For example, Wolfram Schwinger, Penderecki's primary biographer to date, cites the "Polish predilection for strings" shared by Penderecki, Gorecki, Lutosławski and Serocki. Wolfram Schwinger, *Krzysztof Penderecki: His Life and Work*, trans. William Mann (London: Schott, 1989).

² 1962 was also the year in which Penderecki first met Otto Tomek, who soon after became the program director at the annual Donaueschingen music festival, at which Penderecki's works were often performed. Discussions initiated at this first meeting resulted in Tomek's commissioning of the *St. Luke Passion*.

³ Schwinger, op. cit., p. 131.

⁴ Michael Tomaszewski, liner notes to *Krzysztof Penderecki, Volume 1*, Krakow Philharmonic Orchestra/Henryk Czyz (Muza PNCD 017 A/B, 1989).

⁵ Other Penderecki compositions with similar tension-releasing major chord finales are the *Stabat Mater* (1963) and the *St. Luke Passion* (1966).

⁶ Schwinger, op. cit., p. 140.

⁷ Ates Orga, "Krzysztof Penderecki," *Music and Musicians* 22 (October 1973): 39.

⁸ Schwinger, op. cit., p. 140.

⁹ Ibid., p. 141

¹⁰ Schwinger notes that Penderecki was in Vienna at this time for the premiere of the second version of his *Dimensions of Time and Silence*, performed by the RIAS Chamber Choir, Ensemble die riehe and conducted by Friedrich Cerha at the 35th ISCM Festival. Reconsideration of this composition while composing *Fluorescences* is reflected in several compositional similarities between the two works. These similarities, the most striking of which were edited out before the final copy, are quite evident in these sketches. A more detailed study comparing these two works would most likely reveal more extensive similarities. Penderecki travelled to Stockholm in July for a performance of *Threnody* under Michael Gielen in the Nudika Musik

series of concerts (Schwinger, op. cit., p. 28).

¹¹ The most striking difference between the score contained in these sketches and the published edition is that of six "measures," numbered 19-24 in the sketches, which do not appear in the published score and total approximately one minute in length. This sketch segment recalls the style of choral writing found in the chamber work *Dimensions of Time and Silence* (1959/1960). In this earlier work, the chorus adds to the texture of the "noise-spectrum" vocalizing nonpitched, systematized sequences of "acutely pronounced" consonants with sung vowels interspersed on sustained and specified pitches.